



STEM initiatives

Purpose

The United States is facing a serious decline in the number of students pursuing science, technology, engineering, and mathematics (STEM) careers. Unless this trend is reversed, the economy will suffer, national security will be at risk, and Americans will experience a lower standard of living than ever before. The crisis is even more acute in Kentucky, which trails the nation in the number of scientists and engineers as a percentage of the workforce, the number of STEM degrees awarded, and the percent of jobs considered high-tech.

Proposal

The Council requests approximately \$10 million in 2008-09 and recurring in 2009-10 for initiatives to increase the production of STEM graduates.

How it works

Approximately \$5 million of the STEM initiatives funds will be allocated to implement the recommendations of the STEM Task Force, convened in 2006 and 2007 and chaired by University of Kentucky President Lee Todd. The recommendations are focused on improving the way STEM subjects are taught, learned, and assessed from pre-school through college; creating more incentives for students to pursue STEM fields; increasing business and industry involvement; and targeting energy sustainability problems and opportunities unique to Kentucky.

In addition, \$1.45 million each year will support Kentucky's continued involvement in the highly successful, model initiative of Project Lead the Way, a nonprofit organization that provides a four-year, pre-engineering sequence for

high school students interested in becoming engineers. With proposed funding from the Kentucky Department of Education and a commitment of resources from school districts, the Council will work with KDE to develop a cadre of up to 80 participating schools.

Approximately \$3.5 million of the STEM initiatives funds will support a number of New Economy initiatives aimed at building a viable, knowledge-based, entrepreneurial economy in Kentucky. These include funds for the Kentucky Science and Engineering Foundation, commercialization, the Kentucky Enterprise Fund, Kentucky EPSCoR, and the Kentucky Satellite Project (KySat). All of these initiatives, with the exception of KySat, have existed for more than six years and are experiencing financial pressures that exceed initial appropriation levels.

Highlights

- New funds of \$10 million in 2008-09 and recurring in 2009-10.
- Funds will support the implementation of the recommendations of the Council's STEM Task Force.
- Accelerates Kentucky's efforts to improve performance and increase the number of STEM graduates.